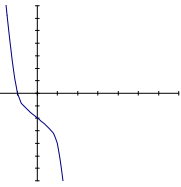
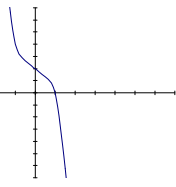


Section 4.1

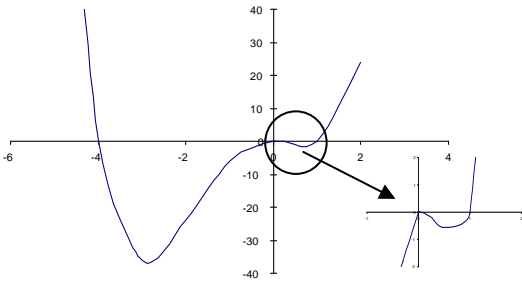
2. a)



b)



20. $f(x) > 0$ if $x < -4$ or $x > 1$
 $f(x) < 0$ if $-4 < x < 0$ or $0 < x < 1$



Section 4.6

8. $k = \frac{2500}{3}$

12. $k = \frac{8}{5}$

14. (a) $F = kx$

(b) $k = \frac{40}{3}$

(c) 20 lb.

16. a. $I = \frac{k}{d^2}$ b. $k = 2.5 \times 10^9$

c. 89.7 candlepower

24. a. $V = k \frac{nT}{P} = \frac{knT}{P}$ b. V is doubled.

Section 9.1

2. $(-2, 5), (1, 2)$

4. No real solutions, $y = -1 \pm i\sqrt{2}$

18. No real solutions, $x = -\frac{6}{5} \pm \frac{2}{5}i$

20. $(\frac{1}{3}, 6), (-2, -1)$

42. $r = 2$ in. and $h = 50/\pi$

Section 9.2

2. $(-3, 5)$

10. $(\frac{55}{31}, -\frac{95}{31})$

16. No solution

18. All (x, y) such that $x - 5y = 2$

26. He can row 55 ft./min.

The current is 5 ft./min.

34. 320 \$0.50 notebooks and 180 \$0.70 ones

36. $V_0 = 80$ ft/sec, $S_0 = 20$ ft.